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# **Management Thinking**

OCTOBER 1961  
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HARVARD BUSINESS SCHOOL ASSOCIATION







# Management Thinking



OCTOBER 1961

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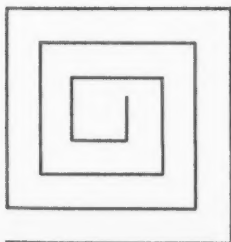
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## PROSPECTUS

You probably didn't recognize us this time from the cover. The design has been completely changed, and we also have a new name. But if you've gotten this far, and if you read any of our issues last year, you will have guessed by now that this is the journal whose contents were formerly labeled *Challenging Business Briefs* and that used to wear an all-red cover except for the type. The new name is a more suitable one, we feel, and we hope that the many EPS subscribers who were dissatisfied with the old title will like the change.

In this and succeeding issues we will continue to try to skim the cream of the crop of articles and papers in a wide variety of non-Harvard media, reprinting, as usual, the complete, unabridged, original texts, and in general

emphasizing material that is helpful, practical, and thought-provoking. If you have nominations for material for future use, please let us know; we want ideas and suggestions. Keep in mind that the article you want to share with other EPS subscribers does not necessarily have to be new. Peter Drucker's article in this issue, for instance, was originally published two years ago.

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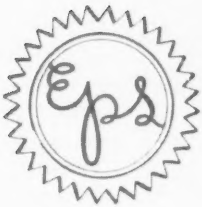
DAVID W. EWING, *Editor*



*If management really wants achievement, originality, and bold ideas, writes the Director of Proprietary Research at Carter Products Company, it will get them. If it doesn't, it will not get them, and the techniques that it uses will be recognized for what they are — a sort of window dressing not intended to be taken seriously. To help you test your assumptions about creativity as opposed to uncreativity, he offers a checklist (see Table I).  
Reading time: 10 minutes.*

## CREATIVITY IN RESEARCH ORGANIZATIONS

*By Irving Reich*



Many articles have been written about techniques for promoting creativity. Most of these miss the main point — that creativity will appear when there is a genuine demand for it. It cannot be evoked by superficial techniques, plans, or polite gestures. Perhaps this is fortunate, since few organizations or administrators really desire it. Nothing is more calculated to upset the smoothly-functioning routine of an organization than an upsurge of original ideas and proposals. Management must make new and difficult decisions; people throughout the organization are disturbed at the prospect of having to change their comfortable habits and patterns of work.

What do we mean by creativity? Presumably this is the faculty of originating new ideas. But is any idea really new? Each of us has in his mind a store of remembered images, pieces of information, rules, concepts. These are arranged in some sort of order and are usually associated with each other in organized groupings. The creative person does not so much originate new ideas as combine old ones in a new way to achieve a surprisingly effective new result. I like the defini-

Reprinted by permission from *Research Management*, Winter 1960.

tion of originality which Dr. Foster D. Snell often uses: "Originality is applying knowledge which you gained in one field to another field."

Paradoxically, therefore, we literally cannot *learn* to be creative; we must rather unlearn something. We must somehow obliterate the walls between the conventional groupings of concepts in our own minds. We must break down the barriers which keep us from bringing together an equation we learned at school, a queer color change in the flask before us, and somebody's offhand remark about the low price of some chemical to see the possibility of new, money-saving process change. A man might have all the knowledge in the Congressional Library stored in his mind and yet be utterly devoid of creativity if the ideas merely remain neatly in place (as they do in the library). Children are highly creative. They have not yet learned to organize their ideas. Their creativity is not too fruitful because they don't have enough ideas and knowledge. As they grow up they learn more and more, but their knowledge becomes more rigidly organized and compartmentalized. The optimum of creativity will be passed when the second process overtakes the first.

Creative thought often takes place on the subconscious level, so that the final concept may seem to spring full-blown to the conscious mind. The role of the conscious intellect usually consists not in forming the creative idea but in examining it for validity and probable usefulness. From among many ideas which are conceived, one must select the few that are promising enough to merit careful analysis and practical trial. The ocean contains gold worth countless billions of dollars, but no one has become rich by extracting this gold. It exists in so highly dilute a form that the effort does not pay.

Here, then, are three requirements for creativity: one must know many things (preferably in many different areas); one must be able to shuffle this knowledge about, making new combinations or syntheses; and one must apply intelligent judgment to the resultant ideas. There is yet one additional essential requirement for any type of human behavior — that of *adequate stimulus or motivation*. I may be able to stand on my head or to sing Chinese songs, but that does not mean that I will do so — at least not in public. I will do these things if the people around me want me to do them; if they will reward me with approval, recognition, or money. I will not do them if I find that they attract only annoyance or hostility. Similarly, if I find that when I present new ideas I get no response, or merely some formal organizational

reflex acknowledgement from my superiors, or if I find that my co-workers are suspicious or resentful or feel that I'm stepping on their toes, I'll probably take the hint after a while. Even if management tells me how much it values new ideas and creative thinking, I'll recognize that they don't mean it.

Creativity, therefore, depends in large measure on whether the environment encourages it or is hostile to it. But surely this cannot be right. What about men who have worked steadily, painfully at highly creative tasks alone, ignored by the world or even in the face of hostility of their peers and neighbors? What about Spinoza, Luther, Mendel? Some such as these live in every age, but they are few. The rest of us are almost pitifully sensitive to the opinions and the expectations of our fellows and even more so to those of our superiors. We want the security, the emotional and financial rewards that come from being well regarded, liked, and respected and keeping out of trouble. The average person working in an environment where original thinking is taboo will soon stop presenting new ideas. After a while he will no longer even conceive any new ideas — that sort of thing will have been trained out of him.

Some people, it is true, have not only the capacity but a positive need for creative self-expression. They cannot remain satisfied to go along doing routine work; they envision new methods, new products, new techniques, and they have a burning desire to get these things tried out. Probably creativity cannot be fully trained out of such people even in the most rigid and uncreative organization. It can, and often is, transmuted in large measure into bitterness by frustration.

Many such highly creative people seem somewhat offbeat — restless, moody, asocial, or nonconformist in various ways. They may lack the tact and easy-going good fellowship that is so much valued in many large business organizations. This does not mean that detached or nonconformist individuals are necessarily creative — only a small minority are. However, an organization which tries to screen out people who seem unusual and hire only pleasant, social "nice guy" types will probably screen out much of the really creative talent. Possibly the creative person is often driven to create by some inner tension or restlessness, some desire for self-fulfillment which the average person discharges in playing golf, driving the family to the seashore, and chatting over a card table. The company which advertised of its research laboratories "No geniuses here — just ordinary Americans at work" is unfortunate if its advertisement was accurate. Most likely however, it was not accurate; it was some

executive's idea of what would constitute a favorable public image.

We know that remarkable upsurges of creative thought and action have occurred at certain times and places. Periclean Athens and Italy in the Renaissance are prime examples. Those who lived in such times cannot have been unique by heredity; when the creative wave passed their descendents no longer created. Perhaps some day psychologists or historians will explain this phenomenon. But without understanding it, one can sense its quality. It is like a fresh wind sweeping across the fields and through the cities. There is a sense of excitement — so much to do, so much to know. The world seems young and full of challenges — challenges which an able man can meet, can grapple with and win through. There is argument, conflict of opinion, new men rising into prominence everywhere, confusion, intellectual adventure. The old traditions and religions are attacked, but they do not necessarily succumb — they may put out new leaves like a tree in spring and come to life again.

On a smaller scale, we have the same thing in research organizations and in businesses. A few palpitate with the clash of ideas, the seemingly confusing or noisy disorder and the sense of excitement and achievement which is so often the concomitant of creativity. The great majority do not — they move along smoothly, well-organized machines in which each cog moves only as impelled by the cog above and only to turn the cog below. The unwritten motto on every wall is "Don't rock the boat." The cogs rotate smoothly; the machine functions well; times are prosperous, profits are increasing; just keep in line, don't step on anyone's toes, and you'll be all right.

In the long run, any organization takes its tone from the people at the top — I say in the long run because even top managers cannot change the habits and spirit of an organization overnight. Those things have a certain stubbornness and persistence. But over a period of time it can be done. Usually, however, a non-creative organization moves toward creative action only when it gets into trouble that brings new people to the top or jolts the old managers into action. Otherwise it remains its old, smoothly-functioning sterile self (why rock the boat?).

What type of manager will build and effectively direct a creative organization? The prime qualities would seem to include curiosity, liveliness, an aggressive desire to accomplish things rather than merely to administer routinely, a positive thirst for the new idea, the new method, the new product that will put their company way out in front. They must be good listen-

ers, willing to have people argue things out, willing to have their people venture boldly and make mistakes, willing to cut across channels, to cut red tape, to value more highly the living flame of thought and achievement than the formalities of protocol and propriety. This attitude should not be confused with the propensity of some executives to discuss problems endlessly for fear of making a decision. The decisions must be made firmly, but after — not before — the process of discussing, arguing, and exploring has enriched and stimulated the mind of the executive.

Creative management of this type is rare. It demands unusual qualities of leadership, patience, and judgement which may not be required of the individual research man working along at his own project. Regarding such leadership in its highest form, the Chinese sage Lao Tse said: "Of the second-rate rulers, people speak respectfully saying, 'He has done this, he has done that.' Of the first-rate rulers they do not say this. They say, 'We have done it all ourselves.'"

There are three common reasons why top management may not want creativity. One is that it seems an unnecessary burden. If business is good, if the company enjoys a strong financial position and is making good profits, there is great temptation on the part of management to coast along. Why get involved in discussions and tough decisions? Why take risks on new ideas when everything is going so well? Top executives may develop an almost superstitious aversion to change under such conditions — they may fear that any change in products or methods might somehow break the spell. It is no accident that the recent compact-car revolution in the automobile industry was initiated by the marginal, struggling American Motors Company rather than by prosperous General Motors or Ford.

A second reason may be that the top man is himself a very forceful and creative person. He may want an organization which carries out his ideas smoothly and efficiently rather than one which originates ideas. If he is a very able person, results may be quite good for a long while. Eventually, when he is gone, the organization may lose its ability to accomplish. Sometimes even while the top man remains this can happen. He grows older, loses his flexibility and flair but retains his stubbornness, surrounds himself with yes-men and gets rid of anyone who disagrees with him. The organization heads downhill.

A third reason may be that creativity in one area has stifled creativity in another. Research, production, marketing, and finance are all essential factors in modern industry. If top management overemphasizes

TABLE I

Uncreative	Creative
Manager gives detailed orders for limited operations; he puts the pieces together.	Able research men in the ranks are assigned important jobs and expected to carry them through.
Laboratories meticulously neat.	Laboratories often untidy and cluttered.
People always advance proposals through proper channels.	People go to anyone who can help.
People never argue about technical matters before the manager.	Technical argument is common and stimulated by the manager.
Manager gets all information and advice through channels.	Manager asks questions, discusses problems with research men in the ranks.
Middle management is composed of smooth "nice guys."	Middle management is aggressive, hard-driving.
Company etiquette, protocol, following rules meticulously highly important.	Formalities are considered much less important than productivity.
People seldom work out of hours or stay late to discuss technical problems.	People often stay over to work or to discuss.
Staff reluctant to ask questions or make statements which might seem foolish at meetings.	Nearly everyone feels quite free to speak.
There are many large formal meetings and committees.	Meetings are usually small and informal.
Nearly all the work is to carry out specific orders by top management.	Much of the work originates in ideas contributed by the research people.
Most effort is directed toward achieving minor improvements, small cost savings, or "gimmicks."	Most effort is on major problems whose solution would improve the company's position decisively.
Creative but "off-beat" people become bitter and frustrated or leave.	Such people usually remain and contribute a good deal.
At lunch conversation centers around automobiles and golf scores.	At lunch conversation centers around technical problems.
Reports are long, carefully edited, polished, and late.	Reports are usually prompt, informal, and pointed.
Company generally follows its competitors' lead in new fields.	Company often develops new important products or processes.

any one of these, it may build up a talented, creative group in that area while relegating people in the other areas to servant status. A business may have a brilliantly creative research department and yet be unsuccessful if its marketing efforts are ineffective and expensive. In an organization dominated by advertising and marketing people, research may be expected merely to implement the specific requests which those people make, often for minor improvements or "gimmicks." Original suggestions by research people are not looked upon with favor.

The utmost in creative achievement can be attained from many creative people only if they are given significant and important jobs with a good deal of

freedom to follow their own approaches, perhaps to get into trouble and get themselves out of it. A salient characteristic of creative organizations is that the manager seeks men who can achieve, gives them important, challenging assignments, and demands results. In many noncreative organizations the manager seeks men who will follow detailed orders, gives them fragments of jobs to do, tells them exactly how to do these, and requires only strict compliance with orders.

This article does not attempt to suggest techniques for improving creativity. Its theme is rather that if management really wants achievement, originality, the bold idea, it will get them. If it doesn't, it will not get them, and the "techniques" which it institutes will be



recognized for what they are — a sort of window dressing not intended to be taken seriously. Some organizations have set up officially-sponsored "brainstorming" sessions. They probably are not of much use. In an uncreative organization they will lead nowhere. In a creative organization, that sort of thing is going on informally all the time and probably does not need to be organized.

Some executives feel that research people must be handled with toughness, while others seem to believe that research men are sensitive plants who must be handled very gently. If carried out as a general policy, each of these misses the point. Indeed these attitudes are sometimes two sides of the same coin and indicate a lack of real respect for research and an anxious desire by the executive to avoid trouble rather than to achieve. The important thing is the *kind* of "toughness" and the *kind* of "gentleness" displayed. A management which really wants original ideas and achievement will be tough in demanding these things, in insisting on meaningful accomplishment, and will not be satisfied with an employee merely because he obeys all the rules and speaks ingratiatingly to the boss. However, it will respect, appreciate, and handsomely reward unusual achievement to a degree which some executives might consider overgenerous and coddling. A management which does not want creativity will

often be "tough" in demanding that employees obey all rules meticulously and do precisely what they are told exactly as they are told to do it. It may be gentle in that it does not seem to demand or even expect anything more than compliance with rules and detailed orders. Many executives who pride themselves in being tough are actually very soft and undemanding. They do not want anything more of their subordinates than that they follow orders. Men who want security and have little creative ability like to work for such executives.

There are certain hallmarks of creative and uncreative research organizations. Some of the salient differences are listed in Table I.

I do not suggest that these features are causes of creativity or sterility; rather, most of them are symptoms. They occur not so much by conscious choice of the management as by psychological consequences of persistent basic management attitudes. They cannot be evoked in a vacuum without reference to those attitudes. Creativity is not a mechanical process which can be ordered or taught. It is, like love, a free gift of the spirit. It is evoked not by skillful manipulation, but by management presenting people with significant challenges; by management seeking, demanding, thirsting for creative ideas.

*For more than 15 years the sermons of Duncan E. Littlefair in Grand Rapids, Michigan have stimulated inquiry and controversy, with reactions ranging from "genius" to "dangerous radical." The text reprinted here, in which he questions some of the most cherished assumptions of management, is not calculated to dull his reputation as a thought provoker. It is one of a number of sermons over the years addressed in part to the businessmen in his audience. Reading time: 8 minutes.*

## HOW MUCH CAN YOU MANAGE?

*By Duncan E. Littlefair*



"How are things, Joe?" "Fine, fine." "Everything under control?" "Yep, everything's under control. I'm sitting on top of the world." These are two aspects of our approach to life; two different statements of the same kind of disease that passes for being successful efficiency. It is a disease that I believe is destroying us personally and will destroy us as a people.

This is one of the contradictions of religion that I was referring to in my introduction to the scripture reading — the conflict between religious thinking and secular thinking. We believe that we have to have things under control before we're doing a good job. We judge a man by how much he has under control and how closely he has it watched and controlled. We want a man who will take a job and get it organized and efficiently managed. We say to our friends in critical appraisal, "What's the matter? Can't you manage it?" We almost never stop to question whether or not he *should* manage it. We assume that he should manage, control, dominate.

We say, "What's the matter? Can't you manage your

This is a verbatim report, edited only for punctuation and clarity, of a sermon delivered, extemporaneously at the Fountain Street Baptist Church, Grand Rapids, Michigan, January, 1960.

children?" What kind of parent would a person be if he couldn't manage his children? There would be scorn, criticism. Here is a reflection on an inadequate, inefficient, poor father or mother or poor parents. Men say, not just in humor or joshing, "What's the matter? Can't you manage your wife?" Something wrong with a man who can't manage his wife so that he can get to do what he wants to do! And I am sure that it would be the same thing in feminine circles; an assumption that they ought to be able to manage their husbands; each managing in his own way, but each sure that he's got him under control.

We manage our work; we control, dominate and manage our social life; we manage, control and arrange our friendships, our families; we manage and control our thinking; we manage and control and dominate our feelings, our activities, our lives — just as we manage, dominate and control the world in which we live. For management, domination and control are the expressions of civilization and everyone knows it. Only barbarians do not control. Civilized man looks after his crops. He sees that he doesn't go hungry because the weather is bad. He doesn't allow one interest to come into conflict with another. He organizes efficiently his culture. So we rear large storehouses for our grain and we develop chemical foods and we make ourselves independent of the weather and almost independent of the environment and we feel that now we've got it made. "How are you doing? Everything under control?"

For, of course, this brings many rewards. It brings the reward of efficiency, because if you know what's going to happen and are prepared for it you're not thrown off step, you're not thrown into imbalance. You know you have to produce so many parts, and you organize to produce the parts and you have available all kinds of resources for contingencies so that nothing unexpected will interfere with efficient production. This is efficiency in a factory, efficiency in city management, efficiency in your home, and efficiency with your friends and your children. Everything is under control. The mind is working and it's all organized rationally and you know the categories. This is our God as American people — *efficiency!*

And there can be no efficiency without management; and the more the efficiency, the more the domination, the more the management, and the more the control. If we have this kind of management we have a feeling of purpose and mission which is terribly necessary to us. And if we begin to feel purposeless and lost (which we occasionally do) then we start organizing again to become efficient so that we know what we're

doing. This is another expression of it: we know what we're doing. We begin to move toward the goal, and with the moving toward it comes a sense of power, comes the feeling of being the civilized person who is Lord of Creation, no longer cast adrift but moving in a direction.

When we have this we have what we call "peace of mind." Ask people what they mean by "peace of mind" and they will tell you an assurance, assurance that what they're doing is all right; faith and confidence that they're moving in the right direction; a feeling of well being that everything around them is functioning creatively for them; that they are supported; that everything is right and that they know their place and they know it's a good place. "Peace of mind" becomes the settling of all the myriad parts of the complicated jigsaw of our life into a pattern, so that we know where we are and we don't want it disturbed.

Now these values are from management and control. How could anybody exaggerate the wonder and the need, in a civilized, complicated, interrelated world, of management, direction and control? Beautiful values — but they aren't enough. I am sure that even though I've been trying to extol the validity of these ends, in and through my voice there have been running the basic criticisms that I feel I have to make. These ends no matter how beautifully extolled are not enough, and I warn you that we almost never criticize them. They are what we call part of our philosophic structure. They are presuppositions of our thinking.

We start with our children from the youngest age to give them management and control, even of their elementary functions. The sooner they get management and control the prouder the parents, and this goes on all the way through our life. Anybody who criticizes this is regarded as being a little stupid. I believe this is what Paul meant when he said [to paraphrase], "I do not come to you with wisdom. I come to you with the foolishness of God." He meant the foolishness revealed in the death of a man on a cross, not the wisdom of making your day count for as much as possible in the most efficient manner. You see, the more efficient we become, the more control we have, the more we dominate our friends and family and environment, the more proud and arrogant we become.

And there is almost no virtue in this kind of proud-arrogance — an arrogance that assumes that a person has "got it made," that "he's sitting on top of the world, he's got everything under control"; the arrogance of a man who assumes the validity of his

*"This management and control is not good because it encourages us to cut down and cut off."*

thinking without even questioning it; the arrogance of people who exalt themselves into the role of God. For remember, it has been said from the beginning of our religion and long before that, we are finite creatures and God is infinite. If there were no other reason for using the word "God" that would be enough — some contrast to our own finitude. We are creatures of the earth; we didn't make the earth and we didn't make ourselves. And when we assume to have everything under control we assume the role of God, and in a human being that becomes sheer destructive arrogance. You don't have to be a Winston Churchill or a Franklin Roosevelt or a Hitler, manipulating great continents of people in order to show this kind of arrogance. It's not the scope of the scene in which you operate, it's the quality of the spirit that is the important thing. A little man in this congregation this morning can be just as arrogant as Hitler even though his scene of operation be smaller.

This management and control is not good because it encourages us to cut down and cut off. You see, we aren't really so stupid as we act. We know that we can't manage everything but we know that we have to manage or we fly apart and break down or blow up. So what we do is cut down on the scope of the things we manage. We cut down on it until we get it where we can handle the job, however much it is, whatever it may be. We can't handle our relationships so we cut off, cut down on the size and cut off on the extent. There are some friends we can't handle, so we cut them off. There is some information and knowledge that is too confusing to us, so we cut it off, forget about it. Anything that is too difficult, that you haven't time for, you cut it off. If you have to stretch your mind to listen to something, cut it off; if it's too disturbing, too abstract, too philosophical, too difficult, eliminate it.

This is what we have been doing, cutting off difficult relationships and cutting down on the size of our life. You see, the horrors of this can mount up and up and up. And if we don't cut down and cut off we violate other people because we make them into numbers or instruments or machines or clients or customers or dollars. Because any time you manage a person you violate him, and the only way you can manage a person is to regard him as something other than a

person — an item or a number. This violation of persons is really being very destructive of ourselves and others and of all we hold true and good.

Again, when we manage people we do not find peace of mind and we get a false sense of security. If it be true that we are finite creatures in an infinite universe, then we only deceive ourselves when we think in terms of control. No matter how closely you seem to have got your life under management, *you know you haven't really and you're afraid*. I have watched it time beyond my counting and I can see it in myself. You get a thing all nicely arranged but you're worried because you know it can be jumbled again. You know that something can come in to bust it up, you know it won't stay, you aren't strong enough and good enough and efficient enough. So you walk around with anxiety in your heart wondering when it's going to crumble, when it's going to break up, when the blow is going to come, when it's going to break. You know all the terms we use and these are only a few. You have a false sense of security from managing because managing is basically unhuman even though it is at the heart of civilization.

Finally, we manage ourselves into spiritual poverty because the things that we can control are things that are within our range now, but unless we run into things we cannot control how can we enlarge our range? How do you get beyond where you are — finite, miserable, little creature? For there's an infinite world around and how are you going to find it if you're always cutting down and cutting off and violating people and closing the doors and pulling down the curtains so that you can keep your world manageable? How are you going to grow? You see, the only way you can grow is by enlarging your pattern, and that means your pattern has to be broken. The only way you see something new is to have a need to see something new, to be forced to see it. That means you have to wrestle with something you don't like. The only way to get new friends is by being uncomfortable for a while, breaking the mold, getting out of the pattern, transcending the limit, blowing up the system, violating your order and your efficiency and your management, exposing yourself to the abyss, to the destructive, to the unknown, to the transcendental, to that which is beyond you, to what you don't like.



*“... the only way you can grow is by enlarging your pattern, and that means your pattern has to be broken.”*

This is the picture of a religious man. Not a man who has a fine little moral system all worked out; not a man who has the world by the tail; not someone sitting up on top of the heap. He's a wrestling, confused, searching, eager, open, sensitive, frustrated person because he wants to manage and he can't and he won't. The need to control is there, but he can't and he won't do it. Either he can't because the world is always outreaching his capacity to handle matters or because he knows that he shouldn't control. So he lives in a world of mystery and of the wonderful and miraculous and shattering. He doesn't live with it all wrapped up like a Christmas box. And when he comes to die he doesn't go out with a saccharine smile of assurance forever. He stands on the edge of an abyss wondering what is there. He goes to it with faith and confidence and the thought of possibly exploring a whole new universe, but he doesn't know.

This is the religious man as I see him. It's the kind of man that I think Paul was talking about, the kind of man that the spiritual leaders of every great religion have talked about; it's not just a Christian view.

So we come to the point where we realize we must not manage other people — not your children, not

your wife or your husband, and not your friends. You mustn't violate the infinite mystery and wonder by having them under control. Don't be ashamed because you can't control your children; be ashamed if you can. And we mustn't try to manage other nations. We'd like to have a China that we could handle; we'd like to have an India that was properly subservient and humble and grateful and beseeching; and we'd like to have a Russia that was right under our thumb where we had them where we wanted them. We mustn't manage other nations and we mustn't seek to get them under our control.

Finally, I don't think that we should even be in such apparent control of ourselves. Don't try to manage your thoughts. Your management here may be efficient but it will be very impoverishing. Why should we always be managing our feelings, trying to make life comfortable, agreeable and efficient? I have surely done enough of this; so have you. But our management of our feelings will destroy the creative richness of the infinite possibilities that are ours. Don't manage your thoughts and don't manage your feelings. I suppose I'm just saying one thing: why don't we leave something to God?

#### BUSINESS CRITICISM NEEDED

I think you have room for comment of a more critical nature. Isn't "business criticism" as important today as literary criticism? I think you could afford to take a *harder, sharper* look at U.S. business — pro and con — and let the conclusions come as they may.

From a subscriber

*What is long-range planning? What is it not? What is new about it? What requirements does it impose on management? These are some of the questions discussed here — as only Peter Drucker can discuss them. Many consider this article to be as pertinent now, if not more so, than it was when first published two years ago. Reading time: 16 minutes.*

## LONG-RANGE PLANNING

*By Peter F. Drucker*



It is easier to define long-range planning by what it is not rather than by what it is. Three things in particular, which it is commonly believed to be, it emphatically is not.

(1) *First it is not "forecasting"*. It is not masterminding the future, in other words. Any attempt to do so is foolish; human beings can neither predict nor control the future.

If anyone still suffers from the delusion that the ability to forecast beyond the shortest time span is given to us, let him look at the headlines in yesterday's paper, and then ask himself which of them he could possibly have predicted ten years ago. Could he have forecast that by today the Russians would have drawn even with us in the most advanced branches of physical sciences and of engineering? Could he have forecast that West Germany in complete ruins and chaos then would have become the most conservative country in the world and one of the most productive ones, let alone that it would become very stable politically? Could he have forecast that the Near East would become a central trouble spot, or would he have had to assume that the oil revenues there would take care of all problems?

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This is the way the future always behaves. To try to mastermind it is therefore childish; we can only discredit what we are doing by attempting it. We must start out with the conclusion that forecasting is not respectable and not worthwhile beyond the shortest of periods. *Long-range planning is necessary precisely because we cannot forecast.*

But there is another, and even more compelling reason why forecasting is not long-range planning. Forecasting attempts to find the most probable course of events, or at best, a range of probabilities. But the entrepreneurial problem is the unique event that will change the possibilities, for the entrepreneurial universe is not a physical but a value-universe. Indeed the central entrepreneurial contribution and the one which alone is rewarded with a profit, is to bring about the unique event, the *innovation* that changes the probabilities.

Let me give an example — a very elementary one which has nothing to do with innovation but which illustrates the importance of the improbable even for purely adaptive business behavior:

A large coffee distributor has for many years struggled with the problem of the location and capacity of its processing plants throughout the country. It had long been known that coffee prices were as important a factor in this as location of market, volume, or transportation and delivery strategy. Now if we can forecast anything, it is single-commodity prices; and the price forecasts of the company economists have been remarkably accurate. Yet the decisions on plant location and capacity based on these forecasts have again and again proven costly blunders. Extreme pricing events, the probability of which at any one time was exceedingly low, had, even if they lasted only for a week at a time, impact on the economics of the system that were vastly greater than that of the accurately forecast "average." Forecasting, in other words, obscured economic reality. What was needed (as the Theory of Games could have proven) was to look at the extreme possibilities, and to ask, "which of these can we not afford to disregard?"

The only thing atypical in this example is that it is so simple. Usually things are quite a bit more complex. But despite its (deceptive) simplicity it shows why forecasting is not an adequate basis even for purely adaptive behavior, let alone for the entrepreneurial decisions of long-range planning.

(2) The next thing to be said about what long-range planning is not, is that it does not deal with future decisions. It deals with the *futurity of present decisions*.

Decisions exist only in the present. The question that faces the long range planner is not what we

should do tomorrow. It is what do we have to do today to be ready for an uncertain tomorrow. The question is not what will happen in the future. It is: what futurity do we have to factor into our present thinking and doing, what time spans do we have to consider, and how do we converge them to a simultaneous decision in the present?

Decision-making is essentially a time machine which synchronizes into one present a great number of divergent time spans. This is, I think, something which we are only learning now. Our approach today still tends toward the making of plans for something we will decide to do in the future. This may be a very entertaining exercise, but it is a futile one.

Again, long-range planning is necessary because we can make decisions only *in the present*; the rest are pious intentions. And yet we cannot make decisions *for the present alone*; the most expedient, most opportunist decision — let alone the decision not to decide — may commit us on a long-range basis, if not permanently and irrevocably.

(3) Finally, the most common misconception of all, *long-range planning is not an attempt to eliminate risk*. It is not even an attempt to minimize risk. Indeed any such attempt can only lead to irrational and unlimited risk and to certain disaster.

The central fact about economic activity is that, by definition, it commits present resources to future and therefore highly uncertain expectations. To take risk is therefore the essence of economic activity. Indeed one of the most rigorous theorems of economics (Boehm-Bawerk's Law) proves that existing means of production will yield greater economic performance only through greater uncertainty, that is, through greater risk.

But while it is futile to try to eliminate risk, and questionable to try to minimize it, it is essential that the risks taken be the *right risks*. The end result of successful long-range planning must be a capacity to take a greater risk; for this is the only way to improve *entrepreneurial performance*. To do this, however, we must know and understand the risks we take. We must be able to rationally choose among risk-taking courses of action rather than plunge into uncertainty on the basis of hunch, hearsay or experience (no matter how meticulously quantified).

Now I think we can attempt to define what long-range planning is. It is the continuous process of making *present entrepreneurial (risk taking) decisions* systematically and with the best possible knowledge of their futurity, organizing systematically *the efforts* needed to carry out these decisions, and measuring the

results of these decisions against the expectations through *organized, systematic feed-back*.

II

"This is all very well," many experienced businessmen might say (and do say). "But why make a production out of it? Isn't this what the entrepreneur has been doing all along, and doing quite successfully? Why then should it need all this elaborate mumbo-jumbo? Why should it be an organized, perhaps even a separate activity? Why, in other words, should we even talk about 'long-range planning,' let alone do it?"

It is perfectly true that there is nothing very new to entrepreneurial decisions. They have been made as long as we have had entrepreneurs. There is nothing new in here regarding the essentials of economic activity. It has always been the commitment of present resources to future expectations; and for the last three hundred years this has been done in contemplation of change. (This was not true earlier. Earlier economic activity was based on the assumption that there would be no change, which assumption was institutionally guarded and defended. Altogether up to the seventeenth century it was the purpose of all human institutions to prevent change. The business enterprise is a significant and rather amazing novelty in that it is the first human institution having the purpose of bringing about change.)

But there are several things which are new; and they have created the need for the organized, systematic, and, above all, specific process that we call "long-range planning."

(1) The time span of entrepreneurial and managerial decisions has been lengthening so fast and so much as to make necessary systematic exploration of the uncertainty and risk of decisions.

In 1888 or thereabouts, an old and perhaps apocryphical story goes, the great Thomas Edison, already a world figure, went to one of the big banks in New York for a loan on something he was working on. He had plenty of collateral and he was a great man; so the vice-presidents all bowed and said, "Certainly, Mr. Edison, how much do you need?" But one of them, out of idle curiosity asked, "Tell me, Mr. Edison, how long will it be before you have this new product?" Edison looked him in the eye and said, "Son, judging from past experience, it will be about eighteen months before I even know whether I'll have a product or not." Whereupon the vice-presidents collapsed in a body, and, despite the collateral, turned down the loan application. The man was obviously mad; eighteen months of uncertainty was surely not a risk a sane businessman would take!

Today practically every manager takes ten or twenty year risks without wincing. He takes them in product development, in research, in market development, in the development of a sales organization, and in almost anything. This lengthening of the time span of commitment is one of the most significant features of our age. It underlies our economic advances. But while quantitative in itself, it has changed the qualitative character of entrepreneurial decisions. It has, so to speak, converted time from being a dimension in which business decisions are being made into an essential element of the decisions themselves.

(2) Another new feature is the speed and risk of innovation. To define what we mean by this term would go far beyond the scope of this paper.

But we do not need to know more than that industrial research expenditures (that is, business expenditures aimed at innovating primarily peacetime products and processes) have increased in this country from less than \$100 million in 1928 to \$7 or 8 billion in 1958. Clearly, a technologically slow-moving, if not essentially stable economy has become one of violent technological flux, rapid obsolescence and great uncertainty.

(3) Then there is the growing complexity both of the business enterprise internally, and of the economy and society in which it exists. There is the growing specialization of work which creates increasing need for common vision, common understanding, and common language, without which top management decisions, however right, will never become effective action.

(4) Finally — a subtle, but perhaps the most important point — the typical businessman's concept of the basis of entrepreneurial decision is, after all, a misconception. Most businessmen still believe that these decisions are made by "top management." Indeed practically all text books lay down the dictum that "basic policy decisions" are the "prerogative of top management." At most, top management "delegates" certain decisions.

But this reflects yesterday's rather than today's reality, let alone that of tomorrow. It is perfectly true that top management must have the final say, the final responsibility. But the business enterprise of today is no longer an organization in which there are a handful of "bosses" at the top who make all the decisions while the "workers" carry out orders. It is primarily an organization of professionals of highly specialized knowledge exercising autonomous, responsible judgment. And every one of them — whether manager or individual expert contributor —



constantly makes truly entrepreneurial decisions, that is, decisions which affect the economic characteristics and risks of the entire enterprise. He makes them not by "delegation from above" but inevitably in the performance of his own job and work.

For this organization to be functioning, two things are needed: knowledge by the entire organization of what the direction, the goals, the expectations are; and knowledge by top management of what the decisions, commitments, and efforts of the people in the organization are. The needed focus — one might call it a *model of the relevant in internal and external environment* — only a "long-range plan" can provide.

One way to summarize what is new and different in the process of entrepreneurial decision-making is in terms of information. The amount, diversity, and ambiguity of the information that is beating in on the decision-maker have all been increasing so much that the built-in experience reaction that a good manager has cannot handle it. He breaks down; and his breakdown will take either of the two forms known to any experimental psychologists. One is withdrawal from reality, i.e., "I know what I know and I only go by it; the rest is quite irrelevant and I won't even look at it." Or there is a feeling that the universe has become completely irrational so that one decision is as good as the other, resulting in paralysis. We see both in executives who have to make decisions today. Neither is likely to result in rational or in successful decisions.

There is something else managers and management scientists might learn from the psychologists. Organization of information is often more important to the ability to perceive and act than analysis and understanding of the information. I recall one experience with the organization of research-planning in a pharmaceutical company. The attempt to analyze the research decisions — even to define alternatives of decisions — was a dismal failure. In the attempt, however, the decisions were classified to the point where the research people could know what kind of a decision was possible at what stage. They still did not know what factors should or should not be considered in a given decision, nor what its risks were. They could not explain why they made this decision rather than another one, nor spell out what they expected. But the mere organization of this information enabled them again to apply their experience and to "play hunches" — with measurable and very significant improvement in the performance of the entire research group.

"Long-range planning" is more than organization and analysis of information; it is a decision-making process. But even the information job cannot be done except as part of an organized planning effort —

otherwise there is no way of determining which information is relevant.

### III

What then are the requirements of long-range planning? We cannot satisfy all of them as yet with any degree of competence; but we can specify them.

Indeed, we can — and should — give two sets of specifications: One in terms of the characteristics of the process itself; another in terms of its major and specific new-knowledge content.

(1) Risk-taking entrepreneurial decisions, no matter whether made rationally or by tea-leaf reading, always embody the same eight elements:

a. *Objectives.* This is, admittedly, an elusive term, perhaps even a metaphysical one. It may be as difficult for Management Science to define "objectives" as it is for biology to define "life." Yet, we will be as unable to do without "objectives" as the biologists are unable to do without "life." Any entrepreneurial decision, let alone the integrated decision-system we call a "long-range plan," has objectives, consciously or not.

b. *Assumptions.* These are what is believed by the people who make and carry out decisions to be "real" in the internal and external universe of the business.

c. *Expectations.* What future events or results are considered likely or attainable?

The three elements above can be said to *define the decision*.

d. *Alternative courses of action.* There never is — indeed, in a true uncertainty situation there never can be — "one right decision." There cannot even be "one best decision." There are always "wrong decisions," that is, decisions inadequate to the objectives, incompatible with the assumptions, or grossly improbable in the light of the expectations. But once these have been eliminated, there will still be alternatives left — each a different configuration of objectives, assumptions and expectations, each with its own risks and its own ratio between risks and rewards, each with its own impact, its specific efforts and its own results. Every decision is thus a value judgment — it is not the "facts that decide"; people have to choose between imperfect alternatives on the basis of their uncertain knowledge and only fragmentary understanding.

Two alternatives deserve special mention, if only because they have to be considered in almost every case. One is the alternative of no action (which is, of course, what postponing a decision often amounts to); the other is the very important choice between adaptive and innovating action — each having risks that differ greatly in character though not necessarily in magnitude.

e. The next element in the decision-making process is the *decision itself*.

f. But there is no such thing as one isolated decision; every decision is, of necessity, part of a *decision structure*. Every financial man knows, for instance, that the original capital appropriation on a new investment implies a commitment to future — and usually larger — capital appropriations which, however, are almost never as much as mentioned in the proposal submitted. Few of them seem to realize, however, that this implies not only a positive commitment but also, by mortgaging future capital resources, limits future freedom of action. The structuring impact of a decision is even greater in respect to allocations of scarce manpower, such as research people.

g. A decision is only pious intention unless it leads to action. Every decision, therefore, has an *impact stage*.

This impact always follows Newton's Second Law, so to speak; it consists of action and reaction. It requires effort. But it also dislocates. There is, therefore, always the question: what effort is required, by whom, and where? What must people know, what must they do and what must they achieve? But there is also the question — generally neglected — what does this decision do to other areas? Where does it shift the burden, the weaknesses, and the stress points; and what impact does it have on the outside — in the market, in the supply structure, in the community, and so on?

h. And, finally, there are *results*.

Each of these elements of the process deserves an entire book by itself. But I think I have said enough to show that both the process itself and each element in it are *rational*, no matter how irrational and arbitrary they may appear. Both the process and all its elements can therefore be defined, can be studied and can be analyzed. And both can be improved through systematic and organized work. In particular, as in all rational processes, the entire process is improved and strengthened as we define, clarify and analyze each of its constituent elements.

(2) We can also, as said above, describe long-range planning in terms of its specific new-knowledge content. Here are the areas where such new knowledge is particularly cogent:

a. *The time dimensions of planning.*

To say "long-range" or "short-range" planning implies that a given time span defines the planning; and this is actually how businesses look at it when they speak of a "five-year plan" or a "ten-year plan." But the essence of planning is to make present decisions

with knowledge of their futurity. It is the futurity that determines the time span, and not vice versa.

Strictly speaking, "short range" and "long range" do not describe time spans but stages in every decision. "Short-range" is the stage before the decision has become fully effective, the stage during which it is only "costs" and not yet "results." The "short range" of a decision to build a steel mill are the five years or so until the mill is in production. And the "long-range" of any decision is the period of expected performance needed to make the decision a successful one — the twenty or more years above break-even point operations in the case of the steel mill, for instance.

There are limitations on futurity. In business decisions the most precise mathematical statement is often that of my eighth grade teacher that parallels are two lines which do not meet this side of the school yard. Certainly, in the expectations and anticipations of a business the old rule of statistics usually applies that anything beyond twenty years equals infinity; and since expectations more than twenty years hence have normally a present value of zero, they should receive normally only a minimal allocation of present efforts and resources.

Yet it is also true that, if future results require a long gestation period, they will be obtained only if initiated early enough. Hence, long-range planning requires knowledge of futurity: what do we have to do today if we want to be some place in the future? What will not get done at all if we do not commit resources to it today?

If we know that it takes ninety-nine years to grow Douglas firs in the Northwest to pulping size, planting seedlings today is the only way we can provide for pulp supply in ninety-nine years. Some one may well develop some speeding-up hormone; but we cannot bank on it if we are in the paper industry. It is quite conceivable, may indeed be highly probable, that we will use trees primarily as a source of chemicals long before these trees grow to maturity. We may even get the bulk of paper supply thirty years hence from less precious, less highly structured sources of cellulose than a tree, which is the most advanced chemical factory in the plant kingdom. This simply means, however, that our forests may put us into the chemical industry some time within the next thirty years; and we had better learn now something about chemistry. If our paper plants depend on Douglas fir, our planning cannot confine itself to twenty years, but must consider ninety-nine years. For we must be able to say whether we have to plant trees today, or whether we can postpone this expensive job.

But on other decisions even five years would be

absurdly long. If our business is buying up distress merchandise and selling it at auction, then next week's clearance sale is "long range future"; and anything beyond is largely irrelevant to us.

The nature of the business and the nature of the decision determine the time-spans of planning.

Yet the time spans are not static or "given." The time decision itself is the first and a highly important risk-taking decision in the planning process. It largely determines the allocation of resources and efforts. It largely determines the risks taken (and one cannot repeat too often that to postpone a decision is in itself a risk-taking and often irrevocable decision). Indeed, the time decision largely determines the character and nature of the business.

#### *b. Decision structure and configuration.*

The problem of the time dimension is closely tied in with that of decision structure.

Underlying the whole concept of long-range planning are two simple insights.

We need an integrated decision structure for the business as a whole. There are really no isolated decisions on a product, or on markets, or on people. Each major risk-taking decision has impact throughout the whole; and no decision is isolated in time. Every decision is a move in a chess game, except that the rules of enterprise are by no means as clearly defined. There is no finite "board" and the pieces are neither as neatly distinguished nor as few in number. Every move opens some future opportunities for decision, and forecloses others. Every move, therefore, commits positively and negatively.

Let me illustrate these insights with a simple example, that of a major steel company today:

I posit that it is reasonably clear to any student of technology (not of steel technology but of technology in general) that steelmaking is on the threshold of major technological change. *What* they are perhaps the steelmaker knows, but *that* they are I think any study of the pattern, rhythm, and I would say morphology of technological development, might indicate. A logical — rather than metallurgical — analysis of the process would even indicate *where* the changes are likely to occur. At the same time, the steel company faces the need of building new capacity if it wants to keep its share of the market, assuming that steel consumption will continue to increase. A decision to build a plant today, when there is nothing but the old technology available, means in effect that for fifteen to twenty years the company cannot go into the new technology except at prohibitive cost. It is very unlikely, looking at the technological pattern, that these changes will be satisfied by minor modifications in existing facilities; they are likely to require new facilities to a large extent. By building today the company

closes certain opportunities to itself, or at least it very greatly raises the future entrance price. At the same time, by making the decision to postpone building, it may foreclose other opportunities such as market position, perhaps irrevocably. Management therefore has to understand — without perhaps too much detail — the location of this decision in the continuing process of entrepreneurial decision.

At the same time, entrepreneurial decisions must be fundamentally expedient decisions. It is not only impossible to know all the contingent effects of a decision, even for the shortest time period ahead. The very attempt to know them would lead to complete paralysis.

But the determination what should be considered and what should be ignored, is in itself a difficult and consequential decision. We need knowledge to make it — I might say that we need a theory of entrepreneurial inference.

#### *c. The characteristics of risks.*

It is not only magnitude of risk that we need to be able to appraise in entrepreneurial decisions. It is above all the character of the risk. Is it, for instance, the kind of risk we can afford to take, or the kind of risk we cannot afford to take? Or is it that rare but singularly important risk, the risk we cannot afford *not* to take — sometimes regardless of the odds?

The best General Electric scientists, we are told, advised their management in 1945 that it would be at least forty years before nuclear energy could be used to produce electric power commercially. Yet General Electric — rightly — decided that it had to get into the atomic energy field. It could not afford not to take the risk as long as there was the remotest possibility that atomic energy would, after all, become a feasible source of electric power.

We know from experience that the risk we cannot afford not to take, is like a "high-low" poker game. A middle hand will inevitably lose out. But we do not know why this is so. And the other, and much more common kinds of risk we do not understand at all.

#### *d. Finally, there is the area of measurements.*

I do not have to explain to readers of *Management Science* why measurements are needed in management, and especially for the organized entrepreneurial decisions we call "long range planning."

But it should be said that in human institutions, such as a business enterprise, measurements, strictly speaking, do not and cannot exist. It is the definition of a measurement that it be impersonal and objective, that is, extraneous to the event measured. A child's growth is not dependent on the yardstick or influenced by being recorded. But any measurement in a business



enterprise determines action — both on the part of the measurer and the measured — and thereby directs, limits and causes behavior and performance of the enterprise. Measurement in the enterprise is always motivation, that is, moral force, as much as it is *ratio cognoscendi*.

In addition, in long-range planning we do not deal with observable events. We deal with future events, that is, with expectations. And expectations, being incapable of being observed, are never "facts" and cannot be measured.

Measurements, in long-range planning, thus present very real problems, especially conceptual ones. Yet precisely because what we measure and how we measure determines what will be considered relevant, and determines thereby not just what we see, but what we — and others — do, measurements are all-important in the planning process. Above all, unless we build expectations into the planning decision in such a way that we can very early realize whether they are actually fulfilled or not — including a fair understanding of what are significant deviations both in time and in scale — we cannot plan; and we have no feed-back, no way of self-control in management.

We obviously also need for long-range planning *managerial knowledge* — i.e., knowledge with respect to the operations of a business. We need such knowledge as that of the resources available, especially the human resources; their capacities and their limitations. We need to know how to "translate" from business needs, business results and business decisions into functional capacity and specialized effort. There is, after all, no functional decision, there is not even functional data, just as there is no functional profit, no functional loss, no functional investment, no functional risk, no functional customer, no functional product and no functional image of a company. There is only a unified company product, risk, investment and so on, hence only company performance and company results. Yet at the same time the work obviously has to be done by people each of whom has to be specialized. Hence for a decision to be possible, we must be able to integrate divergent individual knowledges and capacities into one organization potential; and for a decision to be effective, we must be able to translate it into a diversity of individual and expert, yet focused efforts.

There are also big problems of knowledge in the entrepreneurial task that I have not mentioned — the problems of growth and change, for instance, or those of the moral values of a society and their meaning to business. But these are problems that exist for many areas and disciplines other than management.

And in this paper I have confined myself intention-

ally to knowledge that is specific to the process of long-range planning. Even so I have barely mentioned the main areas. But I think I have said enough to substantiate three conclusions:

a) Here are areas of genuine knowledge, not just areas in which we need data. What we need above all are basic theory and conceptual thinking.

b) The knowledge we need is new knowledge. It is not to be found in the traditional disciplines of business such as accounting or economics. It is also not available, by and large, in the physical or life sciences. From the existing disciplines we can get a great deal of help, of course, especially in tools and techniques. And we need all we can get. But the knowledge we need is distinct and specific. It pertains not to the physical, the biological or the psychological universe, though it partakes of them all. It pertains to the specific institution, the enterprise, which is a social institution existing in contemplation of human values. What is "knowledge" in respect to this institution, let alone what is "scientific," must therefore always be determined by reference to the nature, function and purposes of this specific institution.

c) It is not within the decision of the entrepreneur whether he wants to make risk-taking decisions with long futurity; he makes them by definition. All that is within his power is to decide whether he wants to make them responsibly or irresponsibly, with a rational chance of effectiveness and success, or as a blind gamble against all odds. And both because the process is essentially a rational process, and because the effectiveness of the entrepreneurial decisions depends on the understanding and voluntary efforts of others, the process will be the more responsible and the more likely to be effective, the more it is a rational, organized process based on knowledge.

#### IV

Long-range planning is risk-taking decision making. As such it is the responsibility of the policy-maker, whether we call him entrepreneur or manager. To do the job rationally and systematically does not change this. Long-range planning does not "substitute facts for judgment," does not "substitute science for the manager." It does not even lessen the importance and role of managerial ability, courage, experience, intuition, or even hunch — just as scientific biology and systematic medicine have not lessened the importance of these qualities in the individual physician. On the contrary, the systematic organization of the planning job and the supply of knowledge to it should make more effective individual managerial qualities of personality and vision.



*An old formula gains a new meaning for advertisers: to experiment effectively (E), put together the right measurements (m) with a combination of the manager's and scientist's creativity (c<sup>2</sup>). The author, formerly with DuPont as founder-manager of its advertising research section, is now Technical Director of the Advertising Research Foundation. Reading time: 8 minutes.*

## E=MC<sup>2</sup>

*By Charles K. Ramond*



At the Sixth Annual Conference of the Advertising Research Foundation last fall, Arno H. Johnson, vice president at J. Walter Thompson and former chairman of ARF's board, made a startling prediction. "By 1971," he pointed out, "a conservative estimate is that our productive ability will reach \$800 billion compared with \$505 billion in 1960. To support that level of production and supply the revenues needed for adequate defense and expanded government services, our standard of living must improve to a level of over \$510 billion of personal consumption. Some \$25 billion of advertising investment annually may be needed in 10 years to create these expanded markets — over double the 1960 level of \$12 billion worth of advertising."

Such a forecast undoubtedly should warm the cockles of any advertising man's commercial heart, whether he is involved with electronic or print media. But the prospect of such an increasing investment in advertising may, to my

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mind, inspire some cold chills in the nation's board rooms. The reasons are not hard to find.

For advertising is unique in that there is probably no other kind of business activity in which so many people make so many decisions based on so few facts. This is all the more serious when you consider that more and more each year the cost of business is becoming the cost of selling.

The most alarming aspect of this trend is the fact that selling expense can rarely be evaluated as precisely as the money spent for production and research. As such selling expense increases its share of the invested dollar, so decreases the company's knowledge of how best to use that dollar, and hence its ability to control return on investment.

Not one advertiser in twenty receives any clear idea of the return on his advertising investment. Not one advertiser in twenty knows when he actually improves the allocation of his budget among media, copy appeals, target audiences or geographical regions.

The most unhappy result of this chronic information deficiency is the advertiser's susceptibility to a disease we might call galloping panaceas. Starved as he is for any external basis on which to make his daily decisions, the advertising practitioner is unable to resist the promise of any scientific discipline which seems to bear on his problems.

About 20 years ago, visual psychologists suggested that one way of measuring an ad's effectiveness was to observe where and how often the eye paused in looking it over. Later it was learned that an individual's number of eye-pauses was unrelated to his recall of the ad message, and eye cameras went out of the limelight. Ten years ago, clinical psychology and advertising discovered each other and a feeling got around that motivation research would make the preparation of advertising simply a matter of following recipes from Freudian cookbooks. Several hundred tattoos and eye patches later, copy writers seem to be just as resistant as ever to motivational recipes and just as dependent on their own creativity.

About five years ago, sociologists got into the act with the observation that consumers exist in social contexts, and advertisers began to wonder if effective ads were not just collections of the status symbols of groups to which the prospect aspired. As in the case of motivation research, the gimmicky aspects of sociology are now coming to be understood in the proper perspective and advertising goes on with broadened horizons but essentially the same techniques.

#### HARMLESS PANACEAS

Each of these potential panaceas simply emphasized

a new class of relevant factors which influence advertising effectiveness. As such, each was gradually de-emphasized and assimilated such that today the average advertiser automatically considers visual impact, unconscious motives and social class in the preparation of his advertising message. So this kind of apparent panacea, the kind that simply reminds us to include certain variables in making advertising decisions, is relatively harmless. The shrill over-emphasis doesn't always die but at least it does seem to fade away.

Recently, however, an entirely new kind of galloping panacea has arrived upon the scene. It's new in that it doesn't just introduce new classes of factors which influence advertising effectiveness but, instead, it apparently promises to combine and integrate *all* the important factors into one comprehensive formula by which advertising decisions can be made.

Its name is operations research and its method is mathematics. Compared to the mild cases of motivation research and status consciousness advertising has already suffered, its current bout with operations research looks to be much more serious and some think it may prove fatal. The trade press prints dire warnings about the imminent development of a magic formula for advertising effectiveness which will replace flesh-and-blood practitioners with the smug certainty of decision-making computers.

#### A NEW EPIDEMIC

At their Fourth Annual Conference in 1958, members of the Advertising Research Foundation were among the first victims of this new epidemic when they heard professors from MIT and Case Institute announce with conviction that mathematical models could ultimately remove much of the risk, not only from their decision processes, but from those of all marketing executives. No magic formula was mentioned, but the implication that one was just around the corner was almost irresistible.

Today, two years later, a reaction to operations research has begun to develop, largely as a result of our acquiring a better understanding of what it can and cannot do. Talk about the magic formula is less frequent and many are wondering if the advertising industry has become immunized against psychology and sociology.

I would like to fan this smoldering issue by contending that there is indeed a magic formula for effective advertising. It's completely universal and timeless. It applies with equal validity to all kinds of advertising and will be just as useful 20 years from now as it is today. More importantly, it always works. Best of all it can be expressed very simply:  $E = mc^2$ .

I hasten to add that this should not be confused with Einstein's equation for converting mass to energy although analogies between the social and physical sciences are very fashionable these days, and may have influenced my choice of symbols. One of the first O.R. studies of advertising noted the similarity between the decay of radioactivity of certain elements and the decline of sales when advertising was stopped. I must confess that I'm equally willing to boost the social sciences by such a technique of virtue-by-association.

At any rate, before explaining what this magic formula means, I would like to describe how it was discovered. I can do this in all modesty because I didn't discover it myself. As you will see, it's the product of hundreds of years of scientific thinking and may even be a rather general description of the task of the scientist.

But our concern today is with its application to effective advertising. Perhaps we should attempt to define effective advertising and then indicate how one might go about measuring it. You will quickly perceive this as a thinly disguised description of the methods of operations research.

It almost goes without saying that to be effective, advertising must contribute to the ultimate goals of the company which paid for it. These goals include such desired outcomes as increased market share, more profit, or greater return on investment. In practice it often turns out that it's impossible to obtain all of these outcomes during the same time period. The net result is that the company's objective at any given moment is some stab at a happy compromise among them. For the purposes of this discussion, however, let's assume that maximum profit is the ultimate objective of most companies.

#### SALES AREN'T ALWAYS PROFIT

Clearly, increased sales do not always result in increased profit. If the rate of these increased sales fluctuates widely, for example, increased distribution and inventory costs could well wipe out any hoped-for increase in profit. So merely to consider the sales effectiveness of advertising may not be to learn its true contribution to a company's primary goal. Indeed, it's probably impossible to measure the true effectiveness of advertising apart from the context of all other company processes. Here is where many advertisers who want to try operations research lose interest. If they have to learn the contributions of all company decisions to total profit before they can isolate the unique contribution of advertising, they may well conclude that the better part of valor is to

let someone else in the firm develop the necessary understanding of the entire business system, at which point the contribution of advertising may become apparent. There is much to be said for this viewpoint.

On the other hand, production, research and other non-marketing departments seem to justify their budgets with much more data than the advertising department can usually muster. Perhaps by virtue of his fact-starved position, the advertising manager will be prompted to undertake the task of integrating his company's knowledge of profit-influencing factors. Whether he does or not, there is certainly much to be done before he can hope to understand even his own marketing sub-system. In many companies enough data is readily available for a beginning.

But this is *only* the beginning. Suppose an advertiser had compiled records of dollars spent for all possible profit-producing marketing actions his company had taken during the past 20 years, in the hope of finding meaningful patterns in it. The sheer amount of this data would be staggering. The giant adding machines we call computers could do part of the work, but not a bit more than they were told how to do.

To make sense of the fantastic amount of information available, we have to summarize it in some rational way. The form this rational summary takes usually turns out to be a mathematical model. A computer merely adds, with incredible speed, incredible accuracy and incredible stupidity. Without the guidance of experienced marketing experts to suggest which relationships are most likely to hold between all input factors and profit, the search for patterns in such a mass of data would be like looking for a thousand needles in a thousand haystacks, with the added hazard that most of the needles weren't even there.

There's only one practical reason for constructing mathematical models of marketing systems and that is to increase the likelihood that future marketing decisions will increase profit. An advertising manager, for example, is confronted with a choice of many different media through which to transmit his message. If he could learn from his past experience with some of these media the relation between dollars spent in each and changes in profit — the effects of all other factors being controlled or accounted for statistically — he would then be in a much better position to make his next media choice. The mathematical model permits the development of such functional relationships and thereby can help predict what the consequences of each course of action are likely to be.

#### LARGE MARGINS OF ERROR

But since the company's previous experience can



at best represent only a small part of all possible future courses of action, these predictions are bound to be relatively inaccurate. Margins of error around the predicted profits resulting from each different course of action may be so large as to make the predictions useless as aids to decision-making.

At this point, the user of the mathematical model is likely to wish that there were some magical means by which his firm could acquire experience retroactively, because theoretically the only way the predicted consequence of each choice would be completely accurate would be for the company to have made all the possible choices and combinations of choices many times in the past. While this is clearly impossible, the need remains to increase such experience at a rather rapid rate if the company is ever to learn to make effective decisions.

There is only one way to increase significantly the rate by which a firm gains experience and that is by experimentation. This does not mean that the company must try new and unusual courses of action. In fact it doesn't necessarily mean that they should do anything outside the limits of their previous actions. It does mean, however, that *some* courses of marketing action should be selected by principles of experimental design.

One such principle is random sampling. This is the way the scientist gets around the familiar criticism that "all the other factors weren't constant." If it is desired to learn more about the effect on profit of the amount of one kind of advertising, several random samples of test markets could be selected and one specific amount of advertising administered to each. The assumption involved in such a procedure is that the effects of all other profit-influencing factors — and their interactions with advertising amount — are essentially equivalent from sample to sample. If the samples are properly selected, large enough and sufficiently numerous, this assumption holds. The resulting profit change in each of the test market samples will reflect the influence of advertising amount, not with 100% accuracy, but with an accuracy which would be measurable.

This is an extremely simple example. Time and money can be saved by investigating several advertising variables simultaneously in what are called factorial designs. But even the largest of factorial designs will not provide all the information required to make future decisions more accurately. Because of the dynamic nature of the marketing system, it is impossible to conclude that the relationships observed in one such experiment will be the same for all time.

Such experiments must be part of a continuing pro-

gram in which, by basing future courses of action and experiments on past experimental data, predictions of the consequences of these actions become gradually more accurate. Such experimentation is becoming standard practice in chemical processing, where it can increase purity of yield and other desired characteristics. There it is called evolutionary operation, a name suggested by Professor George Box, formerly of Imperial Chemical Industries in England, and now at the University of Wisconsin.

Similarly widespread experimentation in advertising is hindered by several obvious fears. Most general of these is an understandable reluctance on the part of management to manipulate the allocation of advertising funds just to gain information. After all, they've been making pretty good profits for some time. Why rock the boat? The operations researcher's jargon, including words like "random" and "stochastic," leave further doubt in the decision-maker's mind. Why do anything at random when experience and judgment seem to indicate one thing or another?

The only answer to this question is that the risk of not experimenting may be much greater than the risk of experimenting. The risk of not experimenting will perhaps become more obvious when evolutionary operations become more widespread. It is entirely conceivable that the first company that significantly increases its rate of learning about how advertising does and does not cause profit may become sufficiently knowledgeable so quickly that it could then draw red herrings over the paths of its competition so that the latter's experimentation could never be quite as productive. In this far-fetched example, the leader in experimentation could conceivably get far enough ahead to prevent his competition from ever catching up.

#### WHAT MAKES THE PROFIT?

A second fear of experimental methods is more solidly grounded and based simply on the factual question of how much variance in profit is actually caused by factors controllable by the company. It's quite possible, and indeed likely in some cases, that the major determinants of a product's profit are out of the hands of the company that makes it. If such were the case, then no amount of experimentation could be expected to produce much guidance for effective decision-making for advertising or any other area.

The counter-argument here is that there is simply no way to find this out without a try. The beauty of experimentation is that it provides a continuing measure of its own success. Its predictions are either confirmed or denied. If the noise level or error variance

in the system is so high as to obscure the effects of controllable factors, this will become evident in relatively short order.

The third fear of experimentation is a natural distaste for any approach which appears to reduce experienced executive judgment to mathematical formulas. This is mainly due to a failure to understand the true function of the experimental method. It can never replace judgment, it can only narrow the range of uncertainty within which such judgment must always act. The question is not whether decisions can be better made by computers or by human beings. The question is whether human beings can make decisions better with or without the help of computers and experimentation. Anyone who has attempted to construct mathematical models for even the simplest marketing sub-system is forced to conclude that there is not the slightest possibility of developing general formulas which will apply with equal accuracy to the marketing systems of different products. Probably many such systems will, for the reasons mentioned above, remain invulnerable to the operations research approach. Each of those which can be partly solved will very likely require its own highly complex, highly individual mathematical model. In addition, each such

model will have to be revised at frequent intervals to take account of such factors as product age and change in economic conditions.

So, a single magic formula to aid all advertising decision-making simply will never exist. The only magic operations research can offer is that of experimentation. It goes without saying that such experiments are worthless without the ability to measure accurately the factors under study. Infinitely more important is the creativity involved in the selection of relevant marketing variables to be investigated, and in constructing the initial primitive model which must guess how these variables interact.

The creativity of either the operations researcher or the decision-maker alone is not enough. Each must teach the other his particular skills and lore. The resulting combination of managerial and scientific creativity is bound to be more effective than the sum of its parts. In summary, then, to experiment (E) effectively we must measure (m) and combine the right variables in the right way and this can only be accomplished by a combination of the manager's and the scientist's creativity (c<sup>2</sup>). If we must have a magic formula for effective advertising, let's settle for this  $E = mc^2$  and get on with the experiments.

*Present policies are leading us, claims Professor Dunlop, to an unending sequence of legislative regulation, litigation, and political pronouncement. He believes that the community has a right to expect more from organized labor, business management, and government agencies. Indeed, may not a shift in the method of national policymaking be required if labor and management are to make their potential contributions to the larger problems facing the community?*  
*Reading time: 18 minutes.*

## CONSENSUS AND NATIONAL LABOR POLICY

*By John T. Dunlop*



The theme of these remarks is that our national industrial relations system suffers from excessive legislation, litigation, formal awards and public pronouncements; that the principal carriers of this disease are politicians, and that the imperative need is to alter drastically our methods of policy formation to place much greater reliance upon the development of consensus.

Professor William Ernest Hocking defined the politician as the "man who deliberately faces both the certainty that men must live together, and the endless uncertainty on what terms they can live together, and who takes on himself the task of proposing the terms, and so of transforming the unsuccessful human group into the successful group." In proposing the changing terms on which government agencies, managements and unions shall live together in an industrial relations system our politicians have fallen far short of Professor Hocking's standards. Contrary to the wisdom of antiquity, they have separated legislation and a philosophy of collective bargaining; contrary to Holmes they have exalted

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a kind of legal logic over experience; they have reflected little understanding of the practical work level in an industrial society, and they have imposed rules rather than first develop a consensus among those to be affected. These same habits have characterized to a large degree the confederation levels of management and labor; thus, formalism, litigation and unreality pervade the national industrial relations system.

Collective bargaining, in the sense of the relationships between management and unions at the work place, enterprise or industry, is not the topic today. However, I wish to pause long enough on collective bargaining to express the judgment that I do not agree that the country faces a crisis in collective bargaining or that "something is seriously awry in the system of collective bargaining," at least as collective bargaining has been used to refer to the negotiation and administration of agreements. Rather, the overwhelming evidence is that on balance relationships never were better as judged by such standards as grievance handling, discipline, arbitration, wage structure administration, wildcat strikes or violence. It is true that in some industries the environment has become tougher affecting the bargaining, but that is the function of collective bargaining. It is also true that new problems are emerging which may require a new form of relationship — the conference method — among labor, management, and even government. The need for these new forms of relationships in the decade ahead does not mean that collective bargaining has failed; indeed, these new conferences are often being created by traditional collective bargaining.

This discussion of national labor policy is divided into three sections which consider in turn the formation of national labor policy by government, the decisions of the labor movement at the federation level, and finally the policymaking of the confederation level of management.

#### THE FEDERAL GOVERNMENT

The management of American industrial enterprises prior to the Wagner Act, by and large, simply refused to recognize labor organizations. There were notable exceptions as where craftsmen were exceptionally strong, or where the social pressures of isolated communities or groups of workers were particularly intense or where some enterprises for financial reasons or through the idealistic conviction of a few managers accepted collective bargaining. But the expanding mass production industries were overwhelmingly anti-union.

On three occasions, as Professor Slichter pointed out, a major effort was made to persuade American

managers voluntarily to adopt a labor policy of recognition of trade unions and the acceptance of collective bargaining. On each occasion the attempt failed miserably. The first attempt at the turn of the century was under the leadership of the National Civic Federation, Mark Hanna, and other business leaders. The second attempt was made by President Wilson through the Industrial Conference to perpetuate principles of labor-management relations temporarily accepted or imposed during World War I. The third attempt was made through section 7a of the NIRA which proclaimed the rights of collective bargaining and sought to pledge employers to non-interference in the exercise by workers of self-organization.

The failure to persuade American managers without the compulsion of law to recognize labor unions is in marked contrast to the Scandinavian and British experience. In Denmark the September Agreement, made between the central confederation of employers and unions, following the great lockout of 1899, shaped fundamentally the patterns of industrial relations to follow. It provided for mutual recognition and acknowledged the right of strike and lockout after appropriate notice and votes. It recognized the employer's "right to direct and distribute the work and to use what labor may in his judgment be suitable . . ." In Sweden the 1906 "December Compromise" between the confederation levels of employers and unions recognized the full freedom of employers to hire and fire organized and unorganized workers and in exchange recognized the full freedom of workers to organize and provided for redress in case of discipline for exercising this right. In Great Britain the gradual development of its industrial relations system is well characterized by Allan Flanders: "Collective bargaining is for us essentially a voluntary process. . . . The process itself is not normally enforced or regulated by law. . . ."

While there was very considerable industrial conflict and political struggle for a period in Scandinavia and in Great Britain over the status of labor organizations, in the end the right to organize and to engage in bargaining, as well as the procedures and arrangements for bargaining, were evolved gradually by custom or by explicit agreement between organized managements and unions. They were not imposed by law.

In the early 1930's it might have appeared that the United States was headed in the general direction pioneered by Britain and Scandinavia with the lag of a generation to which our British cousins have been prone to point. The greater size of our country, the lesser cohesiveness of our managers, the lesser



class consciousness of our workers, the lesser role of export markets, and the later industrialization and greater significance of agriculture combine to explain the lag.

The Norris LaGuardia Act of 1932 only sought to remove the most serious obstacles which had been developed by the courts to labor organization and to the use of economic weapons in organizing and in bargaining with employers. This statute accorded with the dominant view of labor leaders that they only desired the government and courts to be "neutral"; they did not seek active intervention of the government in their behalf.

The Railway Labor Act of 1926 was in the same mold; it was largely shaped by the joint action of the carriers and the labor organizations. The significant fact is that the establishment of a collective bargaining relationship between the parties and the procedures for dealing with each other were mutually determined. They had the experience of together shaping the framework of their relations and an active joint role in defining the activity of governmental agencies. This experience provides the basis for further joint activity; when politicians deprive labor and management of this experience they eliminate a sense of responsibility for the operation of a statute and deprive the parties of a basis for further cooperation.

The Wagner Act was to constitute a major change in the development of public policy, although it was probably not so intended. On the face of it, the statute did not seem complex. It was designed simply to require employers to recognize and to bargain with labor unions where the employees desired a union. It compelled management to do what they had resisted doing under voluntary persuasion. However, the Wagner Act was to constitute a major fork in the road of labor policy, not merely on account of what it provided, but as a consequence of the inherent implications of the legislative approach in the absence of mutual sanctions for the statute. The signs on the road necessarily pointed to the Taft-Hartley law, the Landrum-Griffin Act, and beyond because of the way in which the policies were determined under the conditions of the times.

It is not necessary here to sketch the inevitable administrative, legislative, judicial, and political steps by which the nation moved from the Wagner Act to Taft-Hartley and then to Landrum-Griffin, nor to outline the steps that are yet to come down this fork in the road. The present state of determination of governmental industrial relations policy can be briefly summarized in seven paragraphs as follows:

(1) The legislative framework of collective bargain-

ing is now regulated by a highly partisan political process. Thus, the Democratic Platform for 1960 promised the "repeal of the anti-labor excesses which have been written into our labor laws," and it accused the Republican administration of establishing a "national anti-labor policy." The Republicans pledged "diligent administration of the existing statutes with recommendations for improvements or to remove inequities."

(2) The responsibility of organized management and labor in shaping the legislative framework and in the administration of the statutes is virtually nil; it is confined to making formal and highly extreme public statements. The politicians have been poor mediators.

(3) The national policy encourages litigation rather than settlement. Litigation fosters unreality in the extreme. It takes a great deal of time; cases are decided years after issues are raised, violating the first principle of industrial relations. The proceedings are highly technical, lawyers are involved in game playing rather than in the process of practical accommodation of the parties and dispute settlement.

(4) The legislative framework is more and more technical and detailed. The point has been reached where general provisions no longer make sense in many industries and we have started in the direction of special provisions for particular industries, as Title VII of the 1959 Act indicates. Fewer and fewer members of the Congress can be equipped to understand the technical issues, and language is necessarily written hastily in late sessions and conference committees by staff lawyers far from the bargaining process. Formal compromises in words assure unending litigation.

(5) It should be recognized as a first principle that no set of men is smart enough to write words through which others cannot find holes when the stakes are high. Thus, the secondary boycott provisions of Taft-Hartley helped to create hot-cargo clauses which in turn led to new provisions in Title VII of the 1959 Act which in turn are leading to new clauses which may well lead to another decade of litigation and then further legislation. The game-playing of the income tax law is not suitable to collective bargaining, the practical necessities of labor-management relations, and the imperatives of the times which require increased cooperation and productivity.

(6) The long-term legislative framework of collective bargaining has been excessively influenced by short-term influences. The depression shaped the



Wagner Act; the post-war inflation and wave of strikes influenced decisively the Taft-Hartley law; and the McClellan Committee largely determined the 1959 law. The compulsions of the immediate are hardly the most appropriate in which to set the framework in which managements and labor organizations shall live for a generation. The long view has been lacking.

(7) In a democratic and pluralistic society the government is seeking to impose on parties to collective bargaining by statute and administrative rulings a set of standards of conduct which in many respects is highly unrealistic. To remove the parties from any significant responsibility for the formation and administration of policy is destructive of the character of our society, leads to impractical and unreal policies and to mass evasion and disrespect.

Such is the state of government labor policy.

I pause to urge that the most significant research contribution that the members of this Association can make to government labor policy is to show how it actually operates. We need less analysis of the law and the cases and much research on the experience at the work place. We need to report and to analyze what actually happens in industrial relations after the NLRB, the courts or arbitrators issue decisions and how the parties use the existence of the law. We need a greater sense of the limitations of pieces of paper.

It is unrealistic to expect any substantial turning back on the present road to government policy, but it should be possible to resolve to proceed no further down the present course. The legislative and administrative framework of collective bargaining should be changed only after extensive consultation and mediation through neutral or government experts with organized management and labor. Labor-management legislation must be a matter of consensus to be effective. The parties should bear a measure of direct responsibility for policy rather than leaving both sides free to criticize legislation as biased and impractical and then devote their full energies and imagination to circumventing the law. A major role should even be evolved for the parties in the administration of the present statutes and to reduce formal litigation. Without the consensus of the parties there can only be further litigation and political legislation. No matter how long it takes, patient mediation and the development of a consensus among top labor and management (with public and government experts) is essential to any solution to the present policy gap.

#### THE LABOR MOVEMENT

The short road to merger, to use Mr. Meany's

phrase, involved putting the many unresolved problems among international unions, including their relations to a single trade union center, in the hands of the merged federation with the hope that the divisive issues could be gradually resolved. The architects of the merger rejected what Mr. Meany has called the method of perfection, which would have resolved these issues in advance of merger on the grounds this road would have taken too long even if it could have led eventually to merger.

By August 1959 it was evident that the many hard problems had not obligingly drifted away, and the Executive Council appointed a special committee to study seven areas of internal disputes. They were listed as follows:

1. The No-Raid clause in the constitution.
2. The agreement between the Industrial Union Department and the Building Trades Department.
3. The dispute between the Metal Trades Department and the Industrial Union Department.
4. The matter of boycotts.
5. The transfer to national and international affiliates of directly affiliated local unions.
6. Organizing ethics in competitive organizing campaigns.
7. Anti-contracting out provisions in trade union contracts.

The Committee was charged with the responsibility of recommending procedures for "an early and conclusive disposition of such types of disputes." The San Francisco convention in September 1959 did adopt the recommendation of the Committee that it should develop a detailed plan, to be approved at a special convention, to resolve all these types of disputes, "embodying final and binding arbitration as the terminal point in such disputes." A qualification was added that "...such arbitration shall be limited to the settlement of disputes only and shall not include the determination of the work or trade jurisdiction of affiliates." The promise of San Francisco was widely hailed, but by the Miami meeting of the Executive Council in February 1960 this approach to internal problems appeared to have been abandoned, and thus far there has been no detailed plan nor special convention.

The fundamental defects of the proposed arbitration approach need to be stated. There can be nothing but respect for the willingness to give up autonomy and sovereignty to the extent proposed by arbitration, but the approach is impractical. So wide a range of problems as organizing ethics, boycotts and work assign-

ment disputes cannot readily be encompassed in a single machinery. The qualification in the resolution on jurisdiction is a reminder how far apart are those who still think in terms of "exclusive jurisdiction," the cornerstone of the AFL constitution, and those who exalt the "collective bargaining relationship," the central concept in the constitution of the merged federation. In the building trades-industrial union disputes there are more interests than the two groups of unions involved; neither contractors nor industrial plants will permit unions to arbitrate their economic destiny. No private disputes settlement can long endure when the governmental machinery yields opposite results and protects a violator of a private plan. There can be no effective enforcement machinery, and the federation has no effective sanctions except to encourage withdrawal of the strong.

These difficulties are significant, but they do not go to the heart of the problem. Arbitration was to be invoked as a way to solve problems which do not lend themselves well to stipulated issues. There must be a meeting of minds, an agreement, a consensus, on the issues listed. Arbitration cannot be a substitute for agreement-making in the areas of such disputes. The short road to merger was taken on the presumption that a number of mergers would follow among competing international unions and that many bilateral jurisdictional agreements among disputing unions would be negotiated. Arbitration cannot achieve these results, nor can it be a substitute for consent. No set of words quickly contrived can substitute for the meeting of minds that comes from extended conferences or the good faith that must be built gradually from particular cases. There may have been a short road to merger, but there is only a long road to consensus.

There is relatively little working contact, except through the head of the Federation, between the presidents of the former CIO industrial unions and the building trades and craft unions. They often do not speak the same language; they have very different concepts of jurisdiction; they have different traditions and views of the union label; they use staff assistants in quite different ways; they do not often meet. This sort of gap which magnifies the substantive issues cannot be bridged by formal arbitration. Agreement-making among international unions is a long and slow process; it is hard and detailed work in which persistence and imagination are major tools. An illustration is afforded in the relations between the Iron Workers and the Glaziers. Their 1957 jurisdictional agreement needed to be modernized for a variety of reasons, including the position of the glazing contractors. It

took at least 15 sessions and 30 days of meetings this year, not to mention many other conferences with each group, to achieve the revision. In some cases more than seven years have been spent in mediating some agreements, as that between the United Association and the Sheet Metal Workers on air conditioning and kitchen equipment. The results cannot be achieved in a single session or in three or four a year. Moreover, relationships must be kept attuned to new problems, both internal and substantive.

The arbitration decisions under the no-raiding agreement and the CIO organizational disputes plan and the recommendations under Article III, Sec. 4 of the constitution, pursuant to the February 1958 action of the Executive Council, have resolved a number of particular cases. The powers of these umpires are very narrowly circumscribed, and they have increasingly confronted compliance problems; these plans have not been administered so as to achieve agreement over the underlying issues.

Let it be clear that I have not said there is no place for a neutral in helping to settle these disputes, nor that orderly procedures are not required. But my experience and conviction is strongly that the arbitration process, particularly of the more formal type, has relatively little to contribute to the development of consensus and working relations within the federation.

#### MANAGEMENT

In his presidential address to this association two years ago, Professor Bakke said: "It is not an exaggeration to say that when collective bargaining became a part of operations of a company, managerial methods underwent a revolution greater than would have been the case if those companies had been nationalized." There have been enormous transformations in industrial management in the past generation, and along with modern technology and business schools, the rise of unionism in large scale industry has been a decisive factor creating the changes.

There have been two principal developments in industrial management related to the rise of unionism: (a) the emergence of a specialized staff solely concerned with labor relations problems, and (b) the adoption of explicit policies designed to lay down lines of action in the wide range of questions — such as discipline, transfers and promotions, compensation and grievance procedures — that arise under collective bargaining. Large-scale managements quickly learned that they needed full time staffs to follow industrial relations developments and to engage in collective bargaining and grievance handling with union representatives who devoted full time to this specialty.

Managements have been slower to learn that long run policies and explicit administrative procedures are essential to industrial relations, that improvising and expediency may avoid an untimely strike, but they tend to lead to lack of control over costs and to whip-saw-tactics and pressure on the part of the union.

But a specialized industrial relations staff and policies are not the real source of the transformation in management. It is rather the grappling with the problems that then arise in coordinating the new staff with other policies. There is hardly an internal managerial relationship, horizontally or vertically, that is left intact, and there is scarcely a policy that is not re-examined under the impact of this new institution, literally within the cell walls of the enterprise.

It is well known that there is no uniform relation today between line and staff in industrial enterprises. In some cases the line administers all labor relations policies and the staff is purely advisory in the classical textbook fashion, while in other instances the staff has operating responsibility for all labor relations decisions including incentive rates, transfers and all grievances. The Brookings study by professors Slichter, Healy and Livernash concludes, on the basis of their extensive field work, that line and staff coordination, cooperation, teamwork or mutual help is indispensable to successful industrial relations. All practitioners of industrial relations have seen instances when conflicts and frictions between line and staff at the plant level over the setting of incentive rates, the extent to which foremen may work, the application of discipline standards, or the conflicts between plant levels and the home office have been the source of many grievances and have encouraged union pressures to force a problem to the most favorable point, from its point of view, in the management hierarchy. There is no mechanistic solution to the line-staff problems within management; there must be coordination and consensus to achieve economic objectives and stable relations with a union.

The transformation in substantive decision-making is no less significant than the changes in the internal structure of management. Industrial relations policies are highly interdependent with the full range of other decisions as the following questions indicate. Shall the company make a concession in a wildcat strike to furnish orders for an important customer? What margin in capacity and in inventories shall the company establish in view of its labor relations? What shall the company say to prospective investors about labor costs and efficiency since unions and employees also have ears? What shall the company say in its public relations program about its contract differences

with the union? These questions indicate that industrial relations issues ramify throughout the full range of managerial decisions. Industrial relations policies affect all other policies. Despite the reserve power to make decisions at the very top — to resolve conflict among various subordinate staffs — final decisions within the enterprise typically involve a consensus.

These adjustments in business structure and policies have tended to produce an improvement in management organization, superior in the sense that it tends to operate by reference to policies, it is less addicted to slogans and platitudes, it is more adaptable and geared to change in market conditions and to changes in the community, it recognizes that internally and externally persuasion is more effective in the long run than the mere assertion of rights, and it places top priority in management upon coordination and organization building and executive development. The unions have played no small role in the vast improvement in enterprise management in the United States. But it is still true as Professor Slichter said that "By and large, the top executives of American enterprises have rather limited familiarity with problems of industrial relations... Progress is being made... Nevertheless, this interest is far less than it should be in view of the enormous possibilities of saving capital expenditures simply by improving employee-management relations."

These developments within the industrial enterprise are to be contrasted sharply with what has been happening at the confederation level of American management — the National Association of Manufacturers and the Chamber of Commerce. In referring specifically to the policy statements of the N.A.M. issued in 1903, 1936 and 1955, professors Douglas V. Brown and Charles A. Myers at the annual meetings in 1956 said that one would be tempted to conclude "... that changes, if any, in philosophy toward unionism had been relatively minor." They observed that "... it is still the fashion, as it was thirty or more years ago, to concede that employees have the right to organize or not to organize. It is still the fashion, as it was earlier, to deny opposition to unions as such; only 'bad unions,' 'labor monopolies,' or 'unions that abuse their power' are formally beyond the pale. It is still the fashion to insist that unions be held legally responsible for their actions." What was true in 1956 is still true of the 1960 edition of the N.A.M.'s *Industry Believes*.

How is one to account for the contrast between the adaptability of management in enterprises and its intransigence at the confederation level? The contrast



is the more striking when it is reported that over half the directorate of the N.A.M. come from companies with collective bargaining agreements. Perhaps the explanation lies partly in the fact governments are not the only organizations which have both state departments and war departments. Perhaps, the posture has been frozen for many years and an older era is perpetuated. Perhaps these confederations attract as active members managements militant in their concern to stop the spread of unionism. These factors may play a role, but there are more fundamental reasons.

The pronouncements of the N.A.M. and Chamber are slogans; they never have to confront the reality of the industrial work place; the consequences of the statements of policy are in the political sphere rather than measured in production and in costs. They resemble the initial demands of one party in collective bargaining rather than a negotiated settlement or a realistic compromise. They are on a par with many resolutions for legislation passed at AFL-CIO conventions. If the confederation level of American management were engaged in collective bargaining, as the SAF in Sweden, the actions of American enterprise management and policy pronouncements of the N.A.M. and Chamber might be more consonant. No enterprise is bound by the pronouncements, and so no one has to take their consequences in the practical sphere of the management of a work force.

These pronouncements do not represent the best practice of American management, nor even the average among larger industrial enterprises; rather, they are formal positions oriented toward political activity. By the practice of enterprise management in the United States, these pronouncements do not reflect any consensus of industrial relations policies. They do not even represent the self-interest of management. For instance, the call for the repeal of the Davis-Bacon Act, confined solely to the construction industry, does not have the support of a single national association of contractors.

The industrial relations system of the United States suffers from the unreality of the confederation level of management. The vigor, imagination and leadership of the enterprise level has no counterpart at the confederation level. I venture the view that until the confederation level of management is transformed, to reflect more faithfully the experience of industrial enterprises, management as a whole will not exercise its potential role in the industrial relations policies of the community, and the government will continue to extend further its role in the regulation of labor-management relations. Industrial management at the

enterprise level in the past decade has shown itself well capable to develop policies to protect its competitive positions and to enhance efficiency within the framework of collective bargaining. There is every reason to expect that it could do as well at the confederation level. The first requirement to achieve a national labor policy by consent is to transform the confederation level of management to reflect more faithfully the experience of enterprise management.

#### THE ALTERNATIVE OF CONSENSUS

The theme of the preceding three sections has been that our national industrial relations system suffers from seeking solutions to problems in terms of legislation and litigation, formal arbitration and public pronouncements. This malady alike afflicts national governmental policy, the labor federation, and the confederation level of management. The common difficulty in its essence is a failure to develop a consensus within government, the labor movement, or management. The consequence is resort to partisan legislation and litigation and the ascendancy of the politicians in national industrial relations policy. An alternative policy is reliance, to a greater degree, upon the development of consensus.

Greater reliance upon consensus is particularly appropriate since the range of industrial relations problems has become increasingly technical, and uniform rules across wide reaches of the economy are impractical in many cases. Moreover, in our society rules and policies which have been formulated by those directly affected are likely to receive greater respect and compliance than when imposed by fiat. The rapidly changing circumstances of technology and markets require greater reliance on consensus since those most directly affected are more sensitive to such change, and adaptation can be more gradual than that imposed belatedly from without. Consensus develops habits of mind which encourage continuing adaptation to new circumstances.

The method of consensus is admittedly difficult to apply; it is so much easier simply to pass another law, or issue another decision or another resolution. The achievement of consensus is often a frustrating process since it must triumph over inertia, suspicion, and the warpath. It is slow to build. But it is clearly the most satisfying and enduring solution to problems. It always has significant by-products in improved understanding in many other spheres than those related to the consensus.

The most fundamental feature of consensus building is that it requires or creates leadership devoted to mediating among followers, a leadership which seeks

to explain problems and sell solutions rather than merely to impose a solution by sheer power or to rail against a decision from without.

An industrial society requires a considerably greater measure of consensus on industrial relations problems than we have. The present course is set toward an unending sequence of legislative regulation, litigation, and political pronouncement. The community has a right to expect more from organized labor, confederation levels of management, and government agencies. Indeed, a shift in the method of national policymaking

in the industrial relations area is required if labor and management are to make their potential contributions to the larger problems facing the community. The place to begin is to resolve that the method of consensus will be used internally in reaching decisions within the federation and confederation levels of management and in the formulation and administration of governmental policies. This is the fundamental challenge — in my view — of the next four or ten years in industrial relations in the United States.

#### ADDITIONAL REFLECTIONS

Labor-management contracts and union policies represent by far the most detailed attempt to regulate men's lives that any organization has attempted, except a few religious groups. (Page 7)

\* \* \*

Although little progress has been made in getting rid of formal make-work rules, considerable progress has been made in eliminating make-work *practices* — substituting tight, carefully engineered standards for loose ones and ending the restriction of output that accompanied loose standards. (Page 340)

\* \* \*

Many companies, having responded to union pressure to develop a policy and program of corrective discipline for employees, would do well to extend the concept of corrective discipline to management as well. (Page 662)

\* \* \*

Maintenance of respect for a contract must rest primarily on management policy, since this is where authority rests, rather than on union policy. (Page 690)

\* \* \*

It might be expected that a union or a company invariably hopes to win its case before an arbitrator. This is not always true. More often than one might imagine the spokesman for one or the other of the parties enters the arbitration hearing with the tacit hope that he will lose the case. (Page 799)

\* \* \*

Management can usually afford long and expensive strikes rather than make concessions that will later have to be taken back. And yet so weak are many managements and so much dominated by the sales department and by the short-run point of view that managements again and again make concessions that later have forced the enterprise to go through long and expensive strikes and, in some cases, have destroyed the business itself. (Page 840)

\* \* \*

If one single statement were sought to describe the effect of unions on policymaking, it would be: "they have encouraged investigation and reflection." Some unions are in fact only a slight check on management; other unions run the shop. But whether the union influence is weak or strong, it always tends to force management to consider the probable consequences of its proposed decisions and to adjust those decisions accordingly. (Page 952)

From Slichter, Healy, and Livernash, *The Impact of Collective Bargaining on Management* Washington, D. C., The Brookings Institution, 1960

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